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ABSTRACT

Arguing that seeking help when needed is an integral part of the learning process, this paper describes a three-stage help-seeking process; examines computer conferencing in academic contexts; and describes several characteristics that promote help-seeking, including the admission of inadequacy, the decision to seek help, and the ultimate acquisition of assistance. Conditions which moderate the potential facilitation of academic help-seeking are discussed, including the degree of cooperation versus competition and instructor and conference participants' reactions to requests for assistance. (Contains 30 references.) (Author/ALF)

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Computer Conferencing: Its Impact On Academic Help-Seeking

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ABSTRACT

Seeking help when needed is an integral part of the learning process. A three-stage help-seeking process is described. Next, computer conferencing in academic contexts is examined and found to possess several characteristics which promote help-seeking. These include the admission of inadequacy, the decision to seek help, and its ultimate acquisition. Conditions which moderate the potential facilitation of academic help-seeking are discussed. Among these are the degree of co-operation vs. competition and instructor and conference participants' reactions to requests for assistance.

INTRODUCTION

Computer conferencing has the potential to alter fundamental organizational patters (Stevens, 1981, 1986). This is certainly true at educational institutions where campus-wide and course- specific conferencing can enhance existing communication channels and create new ones among students and faculty. The implications of conferencing for classroom instruction was noted quite early in a perceptive analysis by Heydinger (1978), based on experience with CONFER, which outlined both the advantages of conferencing and obstacles to its use. Since then, experience with conferencing systems on many campuses appears to substantiate claims that it can be an important pedagogical innovation, even a substitute for face-to-face contact, as evidenced by its use in distance education and virtual classrooms (e.g. Harasim, 1986); Hiltz, 1986a, 1986b).

Since we understand the major parameters of conferencing and the general principles of conferencing applications in educational, as well as in other settings Ie.g., Hiltz & Turoff, 1978; Kerr & Hiltz, 1982), it is perhaps time to begin to focus on ways in which conferencing influences some more specific aspects of student behavior in academic environments. To that end, this presentation will examine the way that conferencing affects an important facet of student learning: academic help-seeking. Academic help-seeking refers to behavior designed to remediate the lack of information and/or skill necessary to accomplish academic goals. After further describing the importance of this behavior and some features of academic environments, the help- seeking process will be detailed, along with the potential impact of conferencing at each stage. Conditions which influence the effect of conferencing are also discussed. The ultimate goal is to make users of conferencing in educational contexts more sensitive to help- seeking itself and the ways that practitioners of conferencing might configure their systems to facilitate the effective use of help- seeking as a learning strategy.

HELP-SEEKING - THE ACADEMIC CONTEXT

The amount of material that students are required to master in most academic settings makes it almost inevitable that even the best will occasionally need help. In face, in a recent study, 94% of the university students samples (N = 612) admitted they needed academic assistance during an academic term (Karabenick & Knapp, 1986). In addition, there is evidence that many students who need help fail to seek it. In the same study, 24% of the students in need got no help at all, and many others sought only minimal assistance. These data are consistent with studies indicating that the extensive array of academic support services available at most colleges and universities (e.g., Lenning, Beal,

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would provide a pool of information unlikely to be available without computer-mediated networking. If not occurring spontaneously, conference facilitators could suggest polls as a way for students to learn about how well they are performing and whether they need help.

However, an even more powerful dynamic appears to take place in conferencing: the direct admission of need. An examination of recent course conferences using CONFER at the University of Michigan indicated that admissions of inadequacy were ubiquitous. These occurred most often at the beginning of a term with students claiming to be "lost" or "stuck", needing help with conferencing commands. What is for many students a first introduction to timesharing and conferencing seems to elicit an ethic that admissions of inadequacy are to be expected. (This tendency extends to help-seeking itself, as discussed below.) Content analyses would reveal how extensive are such admissions and to what they refer. We might ask, for example, whether early admissions of need related to learning the system and conferencing make it more likely that students will admit need later on in substantive areas?

Assume now that a student believes that help is needed. The question then is whether to seek it. Models of help-seeking have case this dilemma in a decision framework in which persons weigh the benefits and costs of seeking and not seeking assistance (Gross & McMullen, 1983). These are now outlined, followed by an examination of the potential influences of conferencing on help-seeking decisions.

The most obvious positive outcome of having sought help is the increased likelihood of task accomplishment (predicated of course on having received quality help). Students who see their instructors, go to study skills personnel, or ask other students for assistance, are more likely to achieve their academic goals than those who fail to do so. Seeking help may also lead to the perception by others that one is motivated to perform and/or interested in accomplishment. A most familiar manifestation of this is asking questions in class. Except when carried to excess, there is evidence that this is responded to by teachers with favor (Nelson-LeGall, Gumerman, & Scott-Jones, 1981).

In addition to more immediate goal accomplishment, by seeking help one may acquire general skills that decrease the necessity of future help-seeking. That is, one may learn approaches to problems that transfer to other situations. Further more, it is possible to consider help-seeking as a useful skill in itself. We typically think of learning strategies in purely cognitive terms, such as acquiring mnemonic techniques for better memory (or e.g., the familiar SQ3R study method). Obtaining help can be included in this category of techniques or strategies. By going through the process, from the first step of recognizing the need for help to the final one of assessing the helping resources available, one gains valuable learning skills.

The several negative consequences of help-seeking have been subsumed under a single principle: threat to self-esteem (Fisher, et al., 1982). According to this notion, having to seek help is inhibited to the extent that it evokes feelings of inferiority.

The perception by individuals that they are seeking help may be threatening to the extent it is viewed as a sign of personal inadequacy (see above). Western socialization contributes mightily to this perception with its stress on individual accomplishment and self-reliance (e.g. Merton, 1968). Threat also arises to the extent that seeking help is perceived to constitute a social stigma. The term that describes such public threat is "embarrassment" (Shapiro, 1983). Many studies implicate potential embarrassment as a major factor in reducing help-seeking. Accordingly, help-seeking will be inhibited to the extent that it is public, or facilitated when permitted in relative confidentiality (Karabenick & Knapp, in press).

When persons receive help they may feel indebted to the helper and, given the "norm of reciprocity," feel obligated to repay the favor (e.g., Gross, et al., 1979). The strength of this feeling depends on may factors, including the nature of the helping relationship, such as whether it is formal or informal, and/or whether it is based on exchange or is communal in nature (cf. Clark, 1983). Studies indicate that, under certain conditions, persons are less likely to seek help when they are

& Sauer, 1980; Pascerella, 1982) are underutilized (Pantages & Creedon, 1978). The potential consequence of not obtaining needed assistance is lower performance and even academically- based dropout. Thus, the importance of examining the effect of conferencing on that critical behavior.

CONFERENCING AND THE HELP-SEEKING PROCESS

Within the past few years, the major factors that influence whether help will be sought have been explored (cf. DePaulo, Nadler, & Fisher, 1983). However, only recently have analyses and studies focused on educational contexts (Ames & Lau, 1982; Karabenick & Knapp, 1986). Models of help-seeking (e.g., Gross & McMullen, 1983) generally divide the process into an initial stage in which persons perceive that they have a problem (i.e., that they need help), a second stage which includes the decision to seek help, and a final stage which involves strategies for obtaining it (including surveying available helping resources). There is no assumption that the stages are always sequential nor invariably transitive. That is, stages may be omitted entirely and later stages precede earlier ones. Nevertheless, the sequence of stages is probably typical and, at the very least, represents a heuristic for explicating the process.

Is help needed?

The perception that one needs help is, in itself, a complex process in which an individual decides that he/she does not have the resources necessary to accomplish some goal (Rosen, 1983). This amounts to admitting some degree of inadequacy. Determining need occurs at two stages in academic environments: during preparation and after formal testing. For example, students (good ones at least) monitor their comprehension when studying - asking whether they understand the material. Not being able to understand may indicate the need for help. Assessments of inadequacy also occur when receiving performance feedback (e.g., test grades) - a poor grade may signal that help is needed. This might seem quite straightforward: an inverse relationship between performance and need.

However, deciding that one is inadequate is typically based on more than performance outcomes alone. We know from work in attribution theory (e.g., Weiner, 1979, 1985) that perceptions of the causes of outcomes are critical and that the search for causes is especially likely following negative outcomes (e.g, poor performance). Common attributions are to ability, effort, task difficulty, or luck. For example, assume that a student receives a low exam grade. Determining that help is needed would depend on whether poor performance is attributed to a tricky or difficult exam, to not having studied enough or to a lack of ability. Attributing poor performance to the lack of ability would be a clear admission that help is needed whereas attribution to the lack of effort would not.

Most important, attributions rely on information about how others have performed and the circumstances of their performance. For example, students trying to determine whether they were poor writers upon receiving poor grades on a short story might wish to know the grades of other students as well. If they learned that everybody else in class received poor grades it might indicate that the instructor was a particularly hard grader rather than point to their own inadequacy. In addition to knowing others' grades, it would be important to know how their levels of effort were compared. For example, if one's failing grade was obtained only after maximum effort, while others' similar grades were obtained with minimal output, one might really feel inadequate and perceive the need for help.

The availability of attribution-relevant information depends on communication among students. In the typical class such communication is quite limited, causing students to base decisions of need on data from a small sample. Veridical attributions would improve as this network widened. Since conferencing provides this increase and facilitates various types of disclosure, it is predicted that its adoption will result in more accurate assessments of whether help is needed. Conference voting (or polling) utilities may even aid this process by collating information in ways not otherwise practicable. For example, a poll on the question, "How many of you thought the exam was difficult?"

unable to reciprocate and would thus remain in a state of indebtedness (Morris & Rosen, 1973).

Both personal and situational characteristics determine whether, in any given instance, positive or negative consequences are more salient. Fisher, et al., (1982) pose the issue in terms of the relative degree to which aid is perceived as "self-supportive" or "self-threatening." For example, highly competitive situations that stress cultural values of self-reliance and "rugged individualism" would be highly threatening and inhibit help- seeking. Conditions relatively lower in competition (or, higher in cooperative norms), that are more permissive with regard to adherence to individualistic cultural values would facilitate aid requests. For the present discussion we would be interested in the moderating influence of computer conferencing environments on the salience of supportive vs. threatening elements.

Conferencing and the decision to seek help

An examination of course conferences using CONFER (noted earlier) not only revealed frequent admissions of the need for help but a high frequency of help-seeking behavior as well. In fact a free text search string of "help" caused a hit in almost every item in one course conference. Much of it centered around learning the system at the beginning, then shifted to substantive areas. Although comparisons with non-conference inter-student and student-faculty interactions are not available, it is unlikely that a comparable rate of help-seeking would occur in that context. What are the characteristics of conferencing that might have produced this high rate?

Anonymity. From what is known about the determinants of help- seeking, course conferencing appears to decrease its perceived negative consequences. In cases where anonymity (e.g. using pen names) is permitted the reason is obviously the reduction in social stigma, or embarrassment Nadler & Porat, 1978; Shapiro, 1983), especially when faculty have access to the conference. And this would be more true for students who have great difficulty with public admissions of inadequacy (Karabenick & Knapp, 1986; Nadler, 1983).

Awareness of help-seeking and cooperative norms. Since help- seeking in conferences becomes public information (whether or not anonymous) students are more likely to become aware of other students' needs for assistance. This makes admitting one's own plight less unique, less conspicuous, less painful, and therefore more probable. In a sense, help-seeking can become normative. Furthermore, from their outset, class conferences tend to establish a norm of cooperation rather than competition. There is the sense that students are joining together in a shared experience (although this certainly is not inevitable in all conferences - cf. Stevens, 1981). The act of asking for help is a part of that experience during early interactions, and group dynamic forces can operate on participants to conform to those expectations (Cook & Flay, 1978). Thus, in cybernetic fashion, early requests for help would encourage their continuation.

Less need to reciprocate. The nature of conferencing should also reduce requirements for reciprocity. That is, it is not as necessary for an individual who receives help to repay the favor since there are others who could provide it. In terms of "social impact theory" (Latane, 1981) there is division of impact. Even further, conferencing often gives participants the opportunity to demonstrate what they know. It's almost a contest to see who can provide the best answer or the right information in response to a request. In that atmosphere reciprocation is much less a factor since giving help is actually a net benefit to the helper. And if conference participants perceive their relationships in "communal" rather than an "exchange" terms (Clark, 1983), then as noted earlier, reciprocation would not be expected. In general, asking for help would not incur the indebtedness that is frequently present in non-conferencing student helping interactions (Gross, et al., 1979; Morris & Rosen, 1973).

Group help-seeking. A common occurrence in courses is that groups of students are more willing to approach their instructor than are individuals. The richer communication network of conferencing increases the likelihood that this will occur. First, the more frequent contact among students makes it more likely that common needs will be identified (especially if voting or polling were used). Then

too, students would find it easier (lower perceived negative consequences) given such a consensus to approach their instructors than would be the case if they perceived themselves acting alone.

Features of instructor-student conferences

Thus far we have concentrated on course conferences in which students discuss course issues with or without instructor access. What about help-seeking by individual students in private conferences? In many respects the effects of course conferencing would apply here as well. However, there are features of computer conferences that can facilitate a variety of beneficial instructor-student interactions, including necessary help- seeking. Many students are intimidated by faculty members and have difficulty approaching them. The computer interface itself would be predicted to make it more likely they would do so. This would be expected from social impact theory which, in part, predicts decreased avoidance with greater interpersonal distance between persons (Latane, 1981). In other words, at the outset, faculty should be more approachable.

One feature of computer mediation and conferencing is the relative absence of time pressure. Based on personal observation, one reason that students do not come to instructors for help is performance anxiety. What they often fear is that their helping interaction will become a testing situation in which they will be asked to perform. Not only not knowing the answer but hesitating is something students want to avoid. Since in mediated communications students are not time-pressured, performance anxiety can also be reduced due to pre-transmission editing. Since, students have the luxury of asking questions and of composing responses in their own time frame there should be less fear of "making a mistake" and displaying their ignorance. This is a decided advantage over voice communications (or even teleconferencing) since in that context time pressure exists even without face-to-face contact.

A feature of conferencing that may inhibit help-seeking is that conferences are permanent records of interactions. Even when help-seeking is not only tolerated but normative, students may not wish to make what in their estimation are excessive demands, even when they are not in some objective sense excessive. While in everyday discourse earlier requests may be forgotten, a review of a conference could reveal a pattern of help-seeking that might be perceived as indicating dependency or inadequacy. Students who review their own conference interactions and conclude that they have made too many requests might be too embarrassed to ask another question even if they desperately need additional help.

Acquiring needed assistance

Actually seeking help is the final stage in the process. Computer based communications and conferencing are of course particularly facilitative at this point. Whether it is seeking specific course-related assistance from other students or one's instructor or seeking assistance from university support personnel to improve general study skills, access is vastly improved. First, there are many more informal sources, primarily other students, on-line than without conferencing, and with these greater numbers an increased likelihood that appropriate help will be forthcoming. Second, it is easier to access help without the time and physical constraints necessary for face-to-face contact. But these advantages are well known.

Perhaps less well appreciated is a more subtle dynamic. For a variety of psychological reasons, such as principles of cognitive dissonance (Festinger, 1957) and self-perception theory (Bem, 1972), people often undertake undesirable or effortful actions by an incremental process. That is, more costly behaviour is more likely if preceded by one less costly, sometimes this principle, getting people to take the first step toward the eventual goal, however small, is extremely important. The ease of access that computer-based communication provides may make it more likely that students will, in fact, take that first step. For reasons noted above (e.g., performance anxiety) students might find it easier to initiate contact through a computer interface than verbally by telephone. It might also be possible to explore problems (why help is needed) in this way since one can take one's time in responding to formulate and to edit one's responses. Having acted, however minimally, further

help-seeking becomes easier. Unless people perceive themselves as forced to act, their self-concept can change (I am a person who gets help when needed.), and they may subsequently have more positive attitudes toward seeking additional assistance when needed, setting the stage for accessing more extensive assistance.

The importance of cooperation

It is important to reiterate that the potential advantages of conferencing presume a supportive environment. As noted earlier, a cooperative climate tends to exist in course conferences, but course incentive systems (e.g., grading procedures) that create high levels of competition could suppress cooperation and the incidence of helping activities. By their neglect of, or hostility to, requests for help, instructors can have a similar influence. Communicating, for example, that seeking help betrays a student's ignorance or lack of initiative could eliminate that behavior, especially in conferences to which that instructor has access. There is no guarantee, of course, that conference participants (i.e., other students) might not communicate similar attitudes toward help-seeking. This could be prevented by judicial comments of instructors or other conference organizers.

Help-seeking and individualism - balance

It is important to stress that while computer-based communication systems make help-seeking easier, it is not suggested that other people are always to be used as a substitute for individual initiative. Stevens (1986) notes the utility of an information- seeking strategy which suggests that when you need some information, first ask somebody who knows, then somebody who knows somebody who knows, and when all else fails, look it up. This may be efficient in some contexts (such as inquiry networking), but in environments where learners are supposedly acquiring higher level skills, that approach may be, in the long term, counter-productive. In academic contexts what is called for is "instrumental help-seeking" (Nelson-LeGall, 1983). In this form of help-seeking learners ask only for the amount of help necessary to further development of their skills (e.g., a few clues on the basic principles of sorting algorithms), rather than help just to make the learner's life easier (e.g., a complete shell or bubble sorting program). As in non-conferencing environments it's a matter of balance. It is important that students be able to overcome obstacles to effective help-seeking without using it to their long-term detriment.

In sum, we began with the proposition that seeking needed academic assistance is valuable and have suggested some ways that conferencing might influence that behavior. In general, it appears that conferencing would act to facilitate help-seeking. However, it is recognized that much of this analysis is quite speculative and awaits empirical evaluation.

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